

CLAIMS

1. A plunger for a retractable syringe having a spring and a needle mount, said plunger comprising a first plunger member and a second plunger member that are releasably engageable to co-operatively maintain said spring in an initial compressed state, arranged so that disengagement of said first plunger member and said second  
5 plunger member can facilitate decompression of said spring from an initial compressed state when required to force retraction of said first plunger member and said needle mount when engaged therewith, following depression of said plunger to deliver fluid contents of said syringe.
- 10 2. The plunger of Claim 1, wherein the first plunger member and the second plunger member are releasably engageable by a bayonet coupling.
3. The plunger of Claim 1 can be disengaged by rotation of the first plunger member relative to the second plunger member.
4. The plunger of Claim 1, wherein the first plunger member comprises a means  
15 for engaging said needle mount.
5. The plunger of Claim 1, wherein the means for engaging the needle mount comprises two barbed arms.
6. The plunger of Claim 1, wherein the second plunger member comprises a seal mounted thereto.
- 20 7. A retractable syringe comprising a plunger, a barrel, a spring and a needle mount, said plunger comprising a first plunger member and a second plunger member that are releasably engaged to co-operatively maintain said spring in an initial compressed state and are disengageable to facilitate decompression of said spring to force retraction of said first plunger member and said needle mount, when engaged  
25 therewith, following depression of said plunger to deliver fluid contents of said syringe.
8. The retractable syringe of Claim 7, wherein the first plunger member and the second plunger member are engaged by a bayonet coupling.
9. The retractable syringe of Claim 7, wherein the first plunger member and the  
30 second plunger member can be rotatably disengaged to facilitate decompression of the spring.

10. The retractable syringe of Claim 7, wherein the first plunger member comprises a means for engaging said needle mount.
11. The retractable syringe of Claim 8, wherein the means for engaging the  
5 needle mount comprises two barbed arms.
12. The retractable syringe of Claim 11, wherein the needle mount comprises recesses that are respectively engageable by the barbed arms.
13. The retractable syringe of Claim 7, wherein the second plunger member comprises a seal mounted thereto.
- 10 14. The retractable syringe of Claim 7, further comprising a collar mounted to the barrel.
15. The retractable syringe of Claim 14, wherein said collar comprises one or more projections capable of co-operating with one or more abutments of said first plunger member to form a plunger disabling means that is capable of preventing  
15 subsequent depression and/or withdrawal of said first plunger member following retraction of the needle mount.
16. The retractable syringe of Claim 15, wherein the one or more projections comprise two pawls that are engageable with respective steps on said first plunger member to co-operably prevent subsequent depression said first plunger member  
20 following retraction of the needle mount and thereby prevent syringe re-use.
17. The retractable syringe of Claim 15, wherein the one or more projections comprise two ribs that are engageable with respective ledges on said first plunger member to co-operably prevent subsequent withdrawal of said first plunger member following retraction of the needle mount and thereby prevent syringe re-use.
- 25 18. A retractable syringe comprising:
- (i) a barrel;
  - (ii) a collar mounted to the barrel and comprising two ribs and two pawls;
  - (iii) a retraction spring;
  - (iv) a needle mount located at a needle end of the barrel; and
  - 30 (v) a plunger operably located in said barrel and engageable with said needle mount, said plunger comprising:

- (a) a first plunger member having two steps and two ledges; and
- (b) a second plunger member and a seal mounted thereto;

wherein the first plunger member and the second plunger member are releasably coupled to co-operatively maintain said spring in an initial compressed state and can  
5 subsequently be rotatably uncoupled to facilitate decompression of said spring to force retraction of said first plunger member and said needle mount when engaged therewith following depression of said plunger to deliver fluid contents of said syringe and wherein said two pawls are engageable with respective steps on said first  
10 plunger member to co-operably prevent subsequent depression said first plunger member and said two ribs are engageable with respective ledges on said first plunger member to co-operably prevent subsequent withdrawal of said first plunger member following retraction of the needle mount and needle.

19. The syringe of Claim 18, arranged so that following retraction of the first plunger member, the needle mount and needle, said second plunger member and said  
15 seal remain at a needle end the barrel thereby preventing refilling and re-use of the syringe.